

AMENDMENTS TO THE CLAIMS

The following is a complete listing of the claims indicating the current status of each claim and including amendments currently entered as highlighted. Please amend claims 1, 3, 9 and 11. Please add claims 16-29

1. (Currently Amended) A method for compressing binarized images comprising: receiving a binarized image and generating a first sequence of first code symbols representing the binarized image wherein at least one row of the image is represented in run-length encoded format; and encoding a portion of the first sequence of code symbols using a preliminary encoding scheme, thereby to provide a first portion of a second sequence of code symbols, and, while encoding, accumulating the frequency of at least some of the first code symbols thus far encoded and generating an additional portion of the second sequence using a modified version of the code scheme such that at least one subsequent code symbol in the first sequence with a large accumulated frequency is encoded more compactly in the second portion than at least one subsequent code symbol in the first sequence with a small accumulated frequency, wherein the encoding is carried out using electronic circuitry hardcoded to effect the encoding and/or the encoding is carried out using a digital computer executing computer readable code which configures the digital computer to effect the encoding.

2. (Original) A method according to claim 1 wherein a modified Huffman coding scheme is employed to generate the first sequence of first code symbols.

3. (Currently Amended) A method for compressing binarized images comprising: receiving a binarized image and generating a first sequence of first code symbols representing the binarized image comprising a representation of one row of the

binarized image and a representation of differences between at least one subsequent row and at least one previous row; and encoding a portion of the first sequence of code symbols using a preliminary encoding scheme, thereby to provide a first portion of a second sequence of code symbols, and, while encoding, accumulating the frequency of at least some of the first code symbols thus far encoded and generating an additional portion of the second sequence using a modified version of the code scheme such that at least one subsequent code symbol in the first sequence with a large accumulated frequency is encoded more compactly in the second portion than at least one subsequent code symbol in the first sequence with a small accumulated frequency, wherein the encoding is carried out using electronic circuitry hardcoded to effect the encoding and/or the encoding is carried out using a digital computer executing computer readable code which configures the digital computer to effect the encoding.

4. (Previously Presented) A method according to claim 1 wherein the encoding scheme used to encode the first sequence of code symbols is continually modified such that code symbols in the first sequence with a large accumulated frequency are encoded more compactly in the second portion than subsequent code symbols in the first sequence with a small accumulated frequency.

5. (Previously Presented) A method according to claim 1 wherein a modified-read coding scheme is employed to generate the first sequence of first code symbols.

6. (previously presented) A method according to claim 1 wherein a modified modified-read coding scheme is employed to generate the first sequence of first code symbols.

7. (Previously Presented) A method according to claim 1 and also comprising binarizing a discrete level image, thereby to provide the binarized image.

8. (Previously Presented) A method according to claim 1 and also comprising binarizing a continuous level image, thereby to provide the binarized image.

9. (Previously Presented) A method according to claim 1 wherein arithmetic coding is employed to translate the accumulated frequency of at least some of the first code symbols into second code symbols.

10. (Currently Amended) Apparatus for compressing binarized images comprising: a run-length encoder operative to receive a binarized image and to generate a first sequence of first code symbols representing the binarized image wherein at least one row of the image is represented in run-length encoded format; and an adaptive encoder operative to encode a portion of the first sequence of code symbols using a preliminary encoding scheme, thereby to provide a first portion of a second sequence of code symbols, and, while encoding, to accumulate the frequency of at least some of the first code symbols thus far encoded and to generate an additional portion of the second sequence using a modified version of the code scheme such that at least one subsequent code symbol in the first sequence with a large accumulated frequency is encoded more compactly in the second portion than at least one subsequent code symbol in the first sequence with a small accumulated frequency wherein the adaptive encoder includes at least one of:

A) electronic circuitry hardcoded to effect the encoding and

B) a digital computer executing computer readable code which
configures the digital computer to effect the encoding.

11. (Currently Amended) Apparatus for compressing binarized images comprising: a binarized image compressor operative to receive a binarized image and to generate a first sequence of first code symbols representing the binarized image, the first sequence comprising a representation of one row of the binarized image and a

representation of differences between at least one subsequent row and at least one previous row; and an adaptive encoder operative to encode a portion of the first sequence of code symbols using a preliminary encoding scheme, thereby to provide a first portion of a second sequence of code symbols, and, while encoding, to accumulate the frequency of at least some of the first code symbols thus far encoded and to generate an additional portion of the second sequence using a modified version of the code scheme such that at least one subsequent code symbol in the first sequence with a large accumulated frequency is encoded more compactly in the second portion than at least one subsequent code symbol in the first sequence with a small accumulated frequency wherein the adaptive encoder includes at least one of:

A) electronic circuitry hardcoded to effect the encoding and

B) a digital computer executing computer readable code which
configures the digital computer to effect the encoding.

12. (Previously Presented) Apparatus according to claim 10 wherein the binarized image compressor employs a modified-read coding scheme to generate the first sequence of first code symbols.

13. (Previously Presented) Apparatus according to claim 10 wherein the binarized image compressor employs a modified modified-read coding scheme to generate the first sequence of first code symbols.

14. (Previously Presented) Apparatus according to claim 10 wherein the adaptive encoder employs arithmetic coding to translate the accumulated frequency of at least some of the first code symbols into second code symbols.

15. (Previously Presented) Apparatus according to claim 10 wherein the encoding scheme used to encode the first sequence of code symbols is continually modified such that code symbols in the first sequence with a large accumulated frequency are

encoded more compactly in the second portion than subsequent code symbols in the first sequence with a small accumulated frequency.

16. (NEW) The method of claim 1 wherein the binarized image is derived from an image of a scene generated by a digital camera, and the binarized image represents the imaged scene.

17. (NEW) The method of claim 1 wherein the binarized image is derived from an image of a marked-up sheet of paper generated by a scanner or a fax machine, and the binarized image represents markings on the marked-up sheet of paper.

18. (NEW) The method of claim 1 wherein the binarized image is a medical image of a one or more human body parts or portions thereof.

19. (NEW) The method of claim 1 wherein the method further comprises the step of transmitting the encoded first portion of code symbols via a switching network.

20. (NEW) The method of claim 19 wherein the switching network is a circuit-switched network.

21. (NEW) The method of claim 1 wherein the encoding is carried out using electronic circuitry hardcoded to effect the encoding.

22. (NEW) The method of claim 1 wherein the encoding is carried out using a digital computer executing computer readable code which configures the digital computer to effect the encoding.

23. (NEW) The method of claim 3 wherein the binarized image is derived from an image of a scene generated by a digital camera, and the binarized image represents the imaged scene.

24. (NEW) The method of claim 3 wherein the binarized image is derived from an image of a marked-up sheet of paper generated by a scanner or a fax machine, and the binarized image represents markings on the marked-up sheet of paper.

25. (NEW) The method of claim 3 wherein the binarized image is a medical image of a one or more human body parts or portions thereof.

26. (NEW) The method of claim 3 wherein the method further comprises the step of transmitting the encoded first portion of code symbols via a switching network.

27. (NEW) The method of claim 24 wherein the switching network is a circuit-switched network.

28. (NEW) The apparatus of claim 10 further comprising a transmitter for transmitting the encoded first portion of code symbols via a switching network.

29. (NEW) The apparatus of claim 11 further comprising a transmitter for transmitting the encoded first portion of code symbols via a switching network.